

FELX4ML

Quick Start



- Modular design with flexible input & output combinations
- Multi-Display videowall splicing up to 8 mega pixels wide
- Seamless switching
- Four active and 4 duplicated outputs
- Support for up to 8 video layers
- Independent display management control
- Support for 4K@60 digital inputs and custom EDID
- Genlock In and Loop
- Control via XPOSE 2.0 or RGBlink OpenAPI

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Overview

FLEX4ML is multi-layer videowall splicing processor, standard with one 4K2K@60 digital input module which is formed by DUAL DVI, HDMI 1.4, HDMI 2.0 and DP 1.2 ports and four S-DVI (Sync) modules, supporting for 8 layers in total. The outstanding feature of FLEX4ML is the built-in splicing and presentation mode patterns which help users to make quick splitting and presentation. Besides control on board, it also support for control via RGBlink XPOSE 2.0.

System Connection

RGBlink offers solutions to demanding technical problems. Any application questions, or required further information, please contact with our customer Support Engineers.



FLEX4ML SYSTEM CONNECTION DIAGRAM

Packing Configuration

AC Power Cord



HDMI to DVI Cable



CAT5 Cable



DB9-RJ11 Serial Cable



Anti-Static Bag



USB Disk

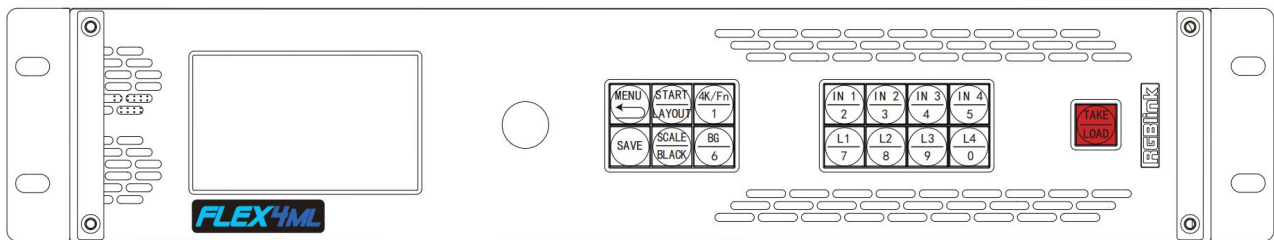


Note:

AC Power Cable supplied as standard according to destination market.

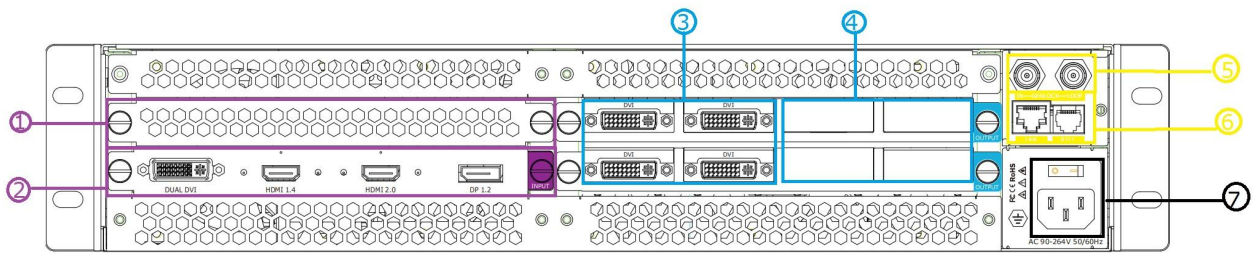
Hardware Orientation

Front Panel



Button Instruction			
	MENU and EXIT		START and LAYOUT
	4K input source select, turn IN1-4 to IN5-8		SAVE SCENE
	SCALE and BLACK out		Background Layer selection
Number1~9	Numbers used in SCALE, CROP, CUSTOM, SAVE and LOAD		IN1/IN2/IN3/IN4 INPUT source selection
	Layer 1-4 selection		Load scene and TAKE to PGM
Knob	Confirm by pushing, selecting items by rotating	LCD panel	Displays current status of the product, and for feature selections, provides interactive choices in conjunction with buttons on the front panel.

Rear Panel



INPUT CONNECTORS		OUTPUT CONNECTORS	
1	Slot for optional inputs up to 4 inputs	3	4 DVI output as standard
2	1 slot for optional single input	4	Optional backup output slot
Communication			
6	Genlock In/Loop	6	LAN Port and RS232 port
POWER			
11	Power switch		
12	Power IEC-3		

Menu Tree

Presentation	Splitting	Advanced	Lanagugage	Factory Reset
Output Resolution	Output Resolution	4K Input Module Mode	English/中文	Factory Reset
Image Select	Image Select	EDID		
	Multi-Split	Input Adjustment		
		Test Pattern		
		Scene Management		
		System Setting		
		Sychronize		

USE YOUR PRODUCT

Presentation

After the device is boot up, push MENU, rotate the knob and select <Presentation>



```
Output Resolution >>
Image Select >>
```

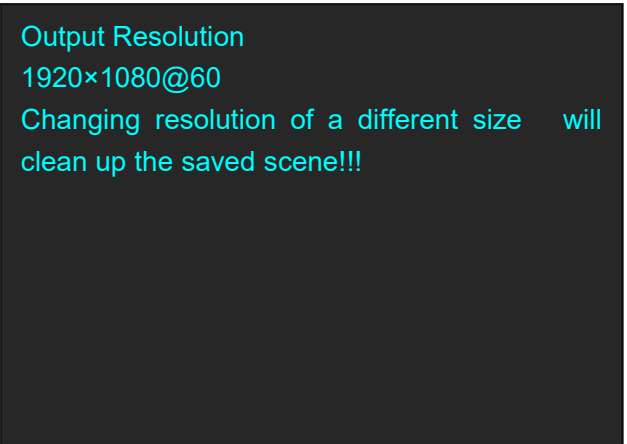
Output Resolution

Output Resolution: Choose Standard or Custom resolution



```
Standard >>
Custom >>
```

Standard: rotate the knob to select standard resolution.



```
Output Resolution
1920x1080@60
Changing resolution of a different size will
clean up the saved scene!!!
```

Custom: use 1~9 numbers to key



in the width, height and frame rate.

```

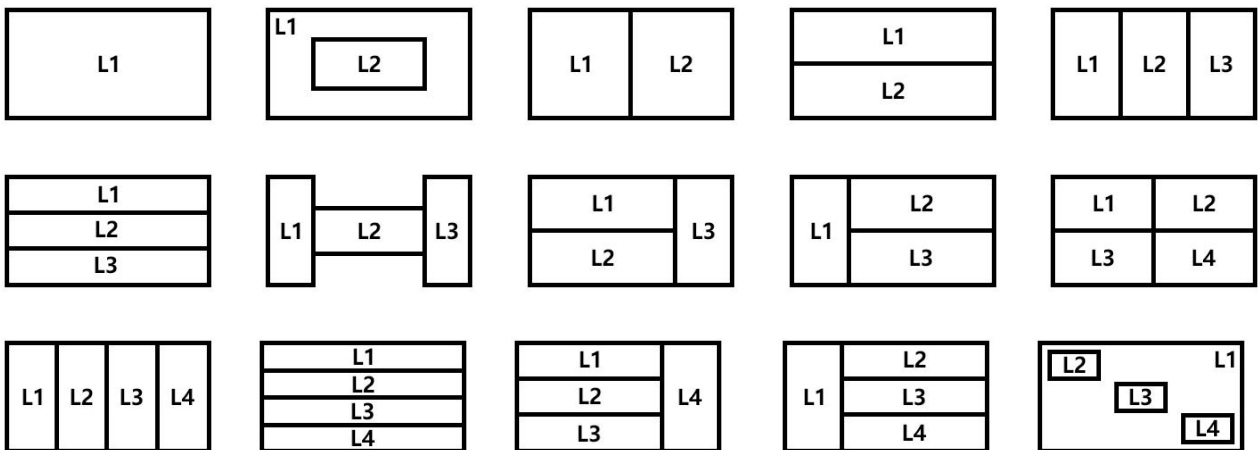
Custom
1920×1080@60
Changing resolution of a different size will
clean up the saved scene!!!
  
```

Image Select

```

Image Layout >>
L1 Source 1.No BOARD
Width 1920
Height 1080
H POS 0
V POS 0
Crop
Save Setting
Reset Parameters
  
```

Image Layout: Select the image layout for presentation mode. There are 15 layout patterns built-in as follows:



Change Layout will delete saved scene

L1~L4 Source: After layout is selected, input source has to be selected for each layer.

Input 1~4 is optional source, if there is no module installed, it will show :Index.NO BOARD

Input 5~8 is DUAL DVI, 6.HDMI 1.4, 7.HDMI 2.0, 8.DP 1.2 which locate on standard 4K@60 digital module.



Layer Adjustment : After layout selection,Width, Height, Horizontal Position, Vertical Position of each layer shall be set.

Crop: crop the source width and height for each layer.

Save Setting: After layer adjustment and source crop is done, Save Setting to confirm the setting.

Reset Parameter: Cancel the above setting.

Width	1920
Height	1080
H POS	0
V POS	0
Save	
Reset	

Split

Push MENU, rotate the knob and select <Split>

Output Resolution	>>
Split Mode	>>
Multi-Split	>>

Output Resolution: the same as Output Resolution in Presentation Mode.

Split Mode

4K Input Module Mode	>>
Split Layout	>>
PIP Layer	>>
Background Souce 8.DP 1.2 (2K×1K)	
H Total 4096	
V Total 2304	
Width 1 2048	
Height 1 1152	
Background Details	



4K Input Module Mode

The available modes for 4K input module: 2K×1K, 4K×1K, 4K×2K

The chosen mode will be valid on all 4 ports

4K Input Module Mode

2K×1K

All Input Port Valid

Save Setting

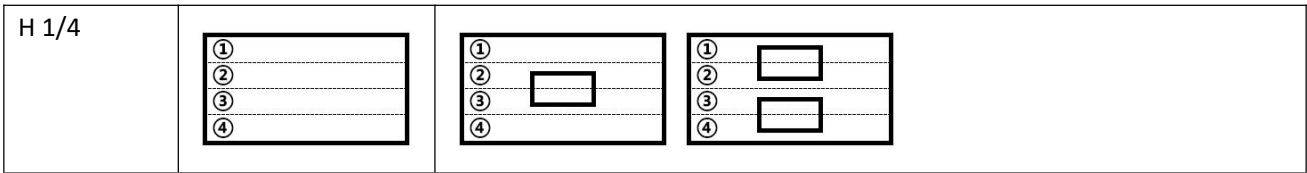
Save Setting to confirm.

Split Layout

There are 6 background split mode available and each basic split mode comes with useful multi-picture layout.

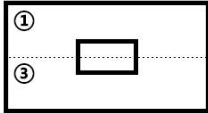
Split Mode	Background	Multi-Picture Layout
Cross		
H 1/2		
V 1/2		
H 1/3		
H 1/4		





PIP

After the split mode is selected, PIP shall be set.
eg. Select split mode V 1/2 with 1 PIP layout



```

4K Input Module Mode      >>
Split Layout              >>
PIP Layer                 >>
Background Mode           V 1/2
Background Source         8.DP1 (2Kx1K)
H Total                   2048
V Total                   2304
Height 1                  1152
Background Details       >>
Save Setting
  
```

PIP Layer MENU

PIP Source

Select source for each PIP layer
If the chosen layout contains more than 1 PIP, PIP Source 2 shall be set.

Width, Height, H Pos, V Pos

Set size and position for PIP

Save Setting

Save Setting to confirm above.

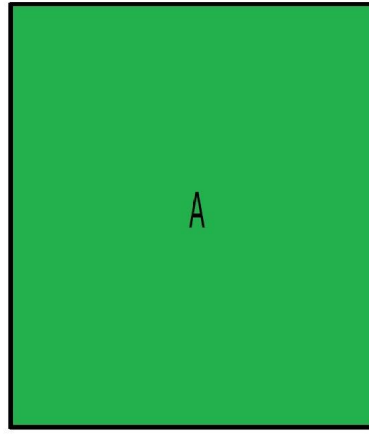
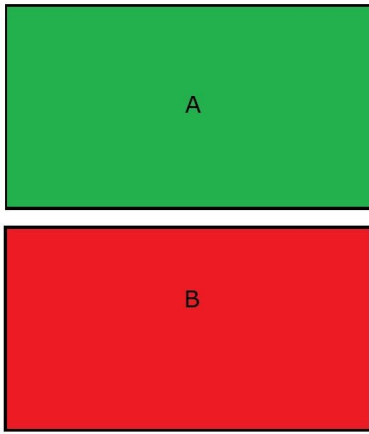
```

PIP Source 1              1.NO BOARD
Width                    1024
Height                   1152
H Pos                    512
V Pos                    576
Save Setting             >>
Reset Parameter
  
```

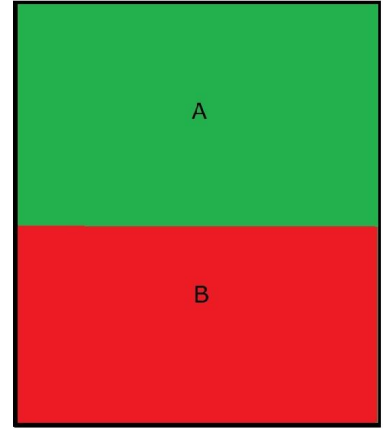
Background Mode

Under split mode V 1/2, there is subclassification V 2In/2 Out based on numbers of source.





V 1/2



V 2 In/2Out

Background Source

Select the source for background.

H Total, V total

Set total height and total width for the splicing output display.

Height 1

Set the height of the first output display.

FLEX4ML show the parameters required based on the Split mode, for example, if the split mode is V 1/3. the Width 1 (width of first output display)and Width 2 (width of second output display) shall be set; if the split mode is Cross, Height 1 and Width 1 will be shown to set.

Background Details

To Scale and Crop the background.

Width	4096
height	2304
H POS	0
V POS	0
Save Setting	
Reset Parameters	

Save Setting

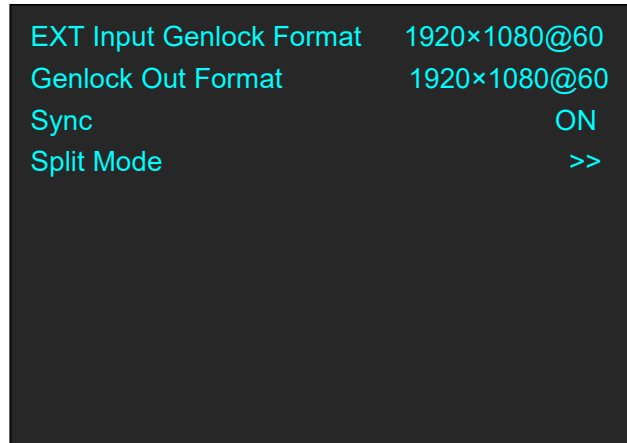
Save Setting to confirm above

Reset Parameters

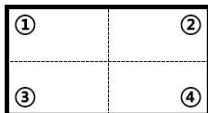
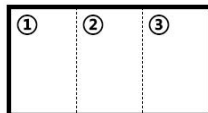
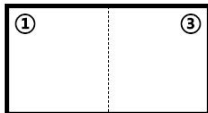
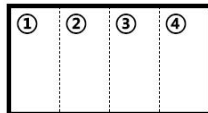
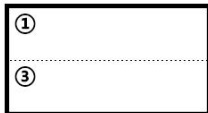
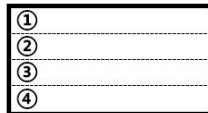
Cancel above setting.



Multi Split Mode

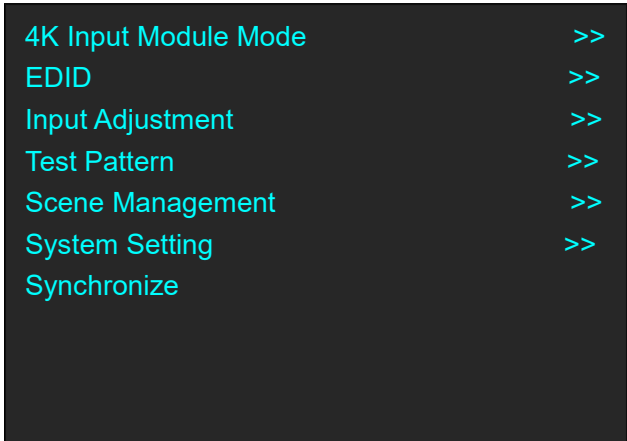


Split Mode operation is the same as “Split Mode” in last section but there is no multi picture layout on each mode, only background split mode available in the Menu.

Split Mode	Background	Split Mode	Background
Cross		H 1/3	
H 1/2		H 1/4	
V 1/2		V 1/4	



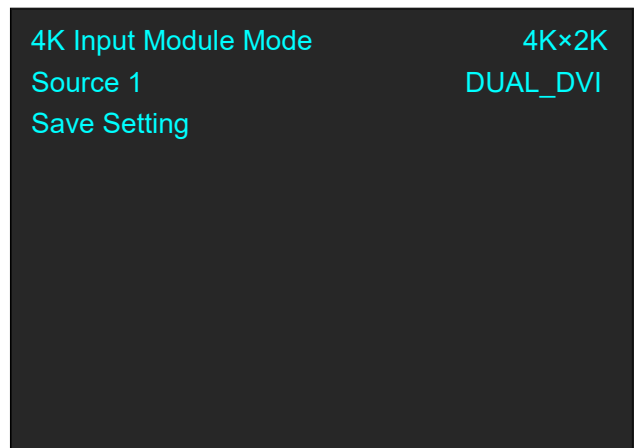
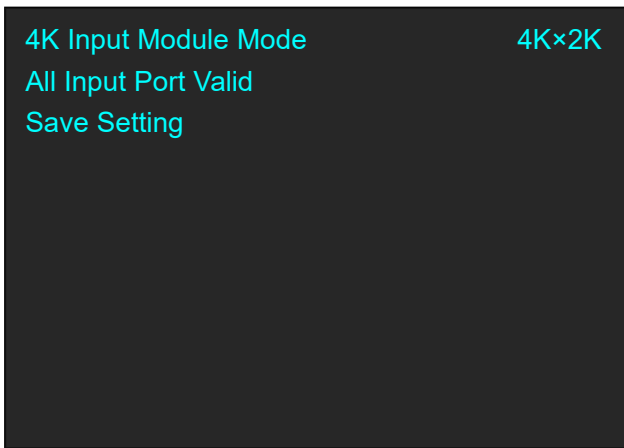
Advanced



4K Input Module Mode

4K mode: 2K×1K, 4K×1K, 4K×2K,
The chosen mode is valid on all input port.

Push the mode to choose the
4K source: DUAL_DVI, HDMI 1.4
HDMI 2.0, DP 1.2



EDID

Destination: 1~8 Input Port

Source: CUSTOM or RESET

Choose CUSTOM to custom EDID

Choose RESET to reset EDID.

```
Destination      8.DP1.2
Source           CUSTOM
```

Input Adjust

Image Quality: Adjust brightness, contrast and color temperature of each input source port.

```
Image Quality    >>
Scale           >>
Crop            >>
USB Control     >>
```

Brightness, Contrast,

Color Red, Green, Blue value:0-255

Color default mode:USER,sRGB,

5800, 6500,7500,9300

```
Brightness      50
Contrast        50
Color default mode  USER
Color Red       50
Color Green     50
Color Blue      50
Save Settings
Reset Parameters
```

Scale: adjust each input source by scale

Crop:adjust each input source by crop

Test Pattern

Output Board Index:

Board in FLEX4ML is EXT OS

Board 1: 1-2 output port

Board 2 : 3-4 output port

TP Mode: Live Image, Color Strip, Pure Color

Green, Red, Blue value range: 0~255

```
Output Board Index      >>
TP Mode                 Live Image
Red                     255
Green                   255
Blue                    255
Save Setting
```

Scene Management

Fade In Fade Out time: 0.1S~10.0S

Set fade in fade out time for scene switching

```
Fade In Fade Out Time  1.0S
Save To                >>
Load From              >>
```

Save To

Save the scene to SCENE 1-10

```
Save To
SCENE 5 scene
Button on is ready to recall
Button flashes means current scene
Button off means empty scene
```

Load From

Load saved scene from SCENE 1-10.

Load From
SCENE 5
Button on is ready to recall
Button flashes means current scene
Button off means empty scene

Buttons

START/LAYOUT

Short cut buttons to enter Split Mode menu when the device is used for the first time, If not, it will enter Presentation Mode

```
Image Layout >>
L1 Source      1.No BOARD
Width          1920
Height         1080
H POS          0
V POS          0
Crop
Save Setting
Reset Parameters
```

BG

On or Off background

When layout is selected, push BG button to select input source.

4K/FN

Push this button to choose 4K or 2K input source. Push this button, IN 1~4 turn to IN 5~8 which are on 4K input module.



L1/L2/L3/L4

Layer selection after background is set. When the layer is select the button will flash. If there the layout chosen previously is without PIP or less PIP than 4, users can push the unlighted Layer button to open up more PIP.

IN1/IN2/IN3/IN4

Select input source 1~4, when the source is selected, the button will flash.

SCALE/BLACK

Before using SCALE/BLACK button, the button function shall be set first. Under <Advanced>-<System Setting> menu, choose SCALE/BLACK as SACLE. After Layer is selected, pushing SCALE/BLACK button will open up SCALE menu as follow:

If button function set as BLACK, pushing this button will black out the slected layer.

Width	960
Height	540
H POS	480
V POS	270
Saving Setting	
PIP Source 1	>>

SAVE

Short cut button to SAVE scene to SECEN 1-10 by pushing number buttons

TAKE/LOAD

Short cut button to Load saved scene from SECEN 1-10 by pushing number buttons and Switch (TAKE) the scene to output display.

CONTACT INFORMATION

Warranty:

All video products are designed and tested to the highest quality standard and backed by full 3 years parts and labor warranty. Warranties are effective upon delivery date to customer and are non-transferable. RGBlink warranties are only valid to the original purchase/owner. Warranty related repairs include parts and labor, but do not include faults resulting from user negligence, special modification, lighting strikes, abuse(drop/crush), and/or other unusual damages.

The customer shall pay shipping charges when unit is returned for repair.

Headquarter: Room 601A, No. 37-3 Banshang community, Building 3, Xinke Plaza, Torch Hi-Tech Industrial Development Zone, Xiamen, China

- **Tel:** +86-592-5771197
- **Fax:** +86-592-5788216
- **Customer Hotline:** 4008-592-315
- **Web:**
 - ~ <http://www.rgblink.com>
 - ~ <http://www.rgblink.cn>
- **E-mail:** support@rgblink.com

